REMARKS

This is in response to the Office Action that was mailed on June 13, 2006. Applicants gratefully acknowledge the indicated allowability of claims 25-27. Claims 22, 23, and 28 are cancelled, without prejudice. No new matter is introduced by this Amendment. Claims 1, 2, 6-8, 10, 13-16, 19, 20, 25-27, and 29-32 are pending in the application.

Written Description – first rejection

Claims 22, 23, and 28 were rejected under the first paragraph of 35 U.S.C. §112 as allegedly failing to comply with the written description requirement. Office Action, pages 3-5. Applicants do not agree with the Examiner's contentions in this regard. However, solely in a good faith effort to advance the prosecution of this application, claims 22, 23, and 28 are cancelled, thereby obviating this ground of rejection.

Written Description – second rejection

Claims 1, 2, 6-8, 10, 13-16, 19, 20, 22, 23, 28, and 29 were rejected under the first paragraph of 35 U.S.C. §112 as allegedly failing to comply with the written description requirement. Office Action, pages 5-10.

Each of claims 10, 15, 16, and 20 (as well as each of non-rejected claims 25, 26, and 27, and "withdrawn" claims 30, 31, and 32) relates to one or more specific sequences. It is not clear how the rejection stated by the Examiner on pages 5-10 of the Office Action applies to claims 10, 15, 16, and 20.

There is a strong presumption that an adequate written description of the claimed invention is present when the application is filed. *In re Wertheim*, 541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976)("we are of the opinion that the PTO has the initial burden of presenting evidence or reasons why ***persons skilled in the art*** would not recognize in the disclosure a description of the invention defined by the claims") (emphasis supplied).

Endostatin is a well known polypeptide of 184 amino acids. In addition to its biological recitations, claim 1 herein recites a peptide that comprises "a portion of an endostatin protein, wherein said peptide is of length from 7-20 amino acids long and contains a pair of proline residues at least one of which is a terminal residue or a residue penultimate to a terminus of the peptide". There are only a finite number of 7-amino acid portions of the endostatin peptide. A ***person skilled in the art***, upon reading the present specification, could readily envision the list of all the recited 7-20 amino acid "portions" of endostatin. A ***person skilled in the art,*** based upon the teachings in the specification, would learn what portion of the endostatin polypeptide should be obtained and would readily envision how to eliminate from the 'all 7-20 amino acid portions' list all portions that did not contain a pair of proline residues, at least one of which is at or penultimate to a terminus of the peptide "portion" of the 184 amino acid endostatin sequence. These two simple manipulations of the endostatin sequence, each of which is within the expected skill of the art, would leave the small group of proline-pair peptides that represent structures within claim 1.

To determine operability of any one of those structures, the ***person skilled in the art*** would then run tests that are described in the present specification on each of the peptides in the small group of proline-pair peptides that had been derived from the endostatin sequence in order to determine whether each peptide exhibits an IC_{50} of 20 μM or less in a bovine aorta endothelial cell proliferation assay or

exhibits inhibition of angiogenesis in a chick chorioallantoic membrane assay of at least 30% at a dose of 50 μg/coverslip. These steps – which once conceived and described as in the present specification are technologically simple – would identify each and every peptide covered by claim 1.

Applicants contend that there is nothing in the steps discussed above that is beyond the expected skill of those persons to whom the present disclosure is directed. The present disclosure provides ***persons skilled in the art*** with a written description of the claimed invention.

In the paragraph bridging pages 6-7 of the Office Action, the Examiner alleges that claim 1 herein "encompasses unspecified variants". That is not so! Claim 1 starts with a known moiety – endostatin. Then claim 1 takes a portion of that known moiety, not just any portion, but a portion having at least 7 and at most 20 amino acids. But not all 7-20 amino acid portions of endostatin are covered by claim 1. Only those that both contain a pair of proline residues at least one of which is a terminal residue or a residue penultimate to a terminus of the peptide and exhibit an IC_{50} of 20 μM or less in a bovine aorta endothelial cell proliferation assay or exhibits inhibition of angiogenesis in a chick chorioallantoic membrane assay of at least 30% at a dose of 50 μg/coverslip. So claim 1 starts with a known group – endostatin – and selectively reduces that group by both structural considerations and separate biological considerations, to arrive at a clearly defined, selected subgroup of the original known starting group of peptides. The term "variants" does not appear in claim 1 – it appears only in the Examiner's argument.

In the paragraph bridging pages 7-8 of the Office Action, the Examiner alleges that amino acids in claim can be replaced with conservative or non-conservative substitution by insertion and/or deletion. Relevant language in claim 1 is as follows: "A peptide comprising a portion of an endostatin protein, wherein said peptide is of length from 7-20 amino acids long and contains a pair of proline residues at least one of which is a terminal residue or a residue penultimate to a terminus of the peptide". The

Examiner is requested to point out where that claim language refers to insertion and/or deletion of conservative or non-conservative amino acids.

In the paragraph bridging pages 9-10 of the Office Action, the Examiner argues that "The specification lacks guidance/direction and/or written description as to how [to] employ a peptide" as claimed. This indicates that the Examiner is confusing enablement with written description. Claim 1 is drawn to peptides. Applicants' specification provides ample guidance as to how to use the claimed peptide, but that is irrelevant to the question raised by the rejection under consideration, which is whether the claimed peptides as chemical entities are described in the specification.

As Applicants have pointed out in detail above, persons skilled in the art would recognize in the disclosure a description of the invention defined by the claims herein. The Examiner – with his references to "variants" and "non-conservative amino acids" has not rebutted the strong presumption that an adequate written description of the claimed invention is present when the application is filed. *In re Wertheim, supra.* Indeed, the Examiner bases the rejection on language not recited in the claims! Furthermore, as explained above, claims 10, 15, 16 and 20 recite specific sequences set forth in the specification. Withdrawal of the rejection of claims herein under the first paragraph of 35 U.S.C. §112 as allegedly failing to comply with the written description requirement is in order and is earnestly solicited.

Conclusion

If there are any questions concerning this application, the Examiner is invited to telephone Richard Gallagher (Reg. No. 28,781) at (703) 205-8008.

If necessary, the Commissioner is hereby authorized to debit Deposit Account No. 02-2448 for any additional fee required under 37 C.F.R. §1.16 or §1.17, particularly extension of time fees.

In view of the above amendment, applicant believes the pending application is in condition for allowance.

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Respectfully submitted,

By _____

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